

Title (en)
CRACKING FURNACE WITH RADIANT HEATING TUBES

Title (de)
CRACK-OFEN MIT WÄRMESTRAHLENDEN RÖHREN

Title (fr)
FOURNEAU DE CRAQUAGE COMPORTANT DES TUBES DE CHAUFFAGE PAR RAYONNEMENT

Publication
EP 1009784 B1 20041006 (EN)

Application
EP 98922286 A 19980511

Priority
• US 9809850 W 19980511
• US 4638397 P 19970513

Abstract (en)
[origin: WO9851761A1] The present invention provides a furnace (6) and process that relied on a multiplicity of radiant heating tubes (20), each in the form of a U-shaped coil, that are mounted within a furnace firebox (10) such that an inlet leg (22) of any one of the plural tubes (20) is immediately adjacent and spaced apart from an outlet leg (26) of another one of the plural tubes (20) within the firebox (10) of a thermal cracking furnace (6). This spacial pairing of an inlet leg (22) of one tube with an outlet leg (26) of another tube of the plural radiant heating tubes (20) of the cracking furnace (6) maximizes utilization of the available radiant heat within the firebox (10) of the thermal cracking furnace (6) while reducing the likelihood of localized hot spotting that could produce coke-tar plugging of the tube (20).

IPC 1-7
C10G 9/20; C10G 9/16; B01J 19/00

IPC 8 full level
C10G 9/20 (2006.01); **F28D 7/06** (2006.01); **F28F 9/013** (2006.01)

CPC (source: EP KR US)
C10G 9/20 (2013.01 - EP KR US); **F28D 7/06** (2013.01 - EP US); **F28F 9/013** (2013.01 - EP US); **F28D 2021/0075** (2013.01 - EP US)

Cited by
CN107227169A

Designated contracting state (EPC)
AT BE DE FR GB IT NL SE

DOCDB simple family (publication)
WO 9851761 A1 19981119; AT E278751 T1 20041015; AU 7487198 A 19981208; BR 9809795 A 20000627; BR 9809795 B1 20090505; CA 2289852 A1 19981119; CA 2289852 C 20070703; DE 69826873 D1 20041111; DE 69826873 T2 20060309; EP 1009784 A1 20000621; EP 1009784 A4 20021106; EP 1009784 B1 20041006; JP 2001525873 A 20011211; JP 4768091 B2 20110907; KR 20010012562 A 20010215; US 6528027 B1 20030304

DOCDB simple family (application)
US 9809850 W 19980511; AT 98922286 T 19980511; AU 7487198 A 19980511; BR 9809795 A 19980511; CA 2289852 A 19980511; DE 69826873 T 19980511; EP 98922286 A 19980511; JP 54953998 A 19980511; KR 19997010517 A 19991113; US 7658098 A 19980512